



ELSEVIER

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

SCIENCE @ DIRECT®

Applied Acoustics 66 (2005) III–VIII

**applied  
acoustics**

[www.elsevier.com/locate/apacoust](http://www.elsevier.com/locate/apacoust)

## Contents of Volume 66

### Issue 1

- 1 Sound scattering by a resistive and axially symmetric object in a two-layer ocean  
P.E. ERGATIS (Greece)
- 15 Measurement of acoustic particle velocities in enclosed sound field: Assessment of two Laser Doppler Velocimetry measuring systems  
B. GAZENGEL & S. POGGI (France)
- 45 A review of commonly used analytical and empirical formulae for predicting sound diffracted by a thin screen  
K.M. LI & H.Y. WONG (Hong Kong)
- 77 Simulation of the nonlinear vibration of a string using the cellular automation method  
S. KAWAMURA, M. SHIRASHIGE & T. IWATSUBO (Japan)
- 89 Active suppression of narrowband noises in 3D sound fields  
J. YUAN (Hong Kong)

### Technical note

- 105 Railway noise levels, annoyance and countermeasures in Assiut, Egypt  
S.A. ALI (Egypt)

### Book review

- 115 Foundations of engineering acoustics  
A. CUMMINGS (UK)
- I Calendar

### Issue 2

- 121 Editorial  
J. KANG (UK)
- 123 A scale model investigation of sound reflection from building façades  
M.R. ISMAIL & D.J. OLDHAM (UK)
- 149 Experimental study of sound propagation in a street  
J. PICAUT, T. LE POLLÈS, P. L'HERMITE & V. GARY (France)
- 175 The influence of traffic flow dynamics on urban soundscapes  
B. DE COENSEL, T. DE MUER, I. YPERMAN & D. BOTTELDOOREN (Belgium)
- 195 Macroscopic modeling of urban traffic noise – influence of absorption and vehicle flow distribution  
P.J. THORSSON & M. ÖGREN (Sweden)

- 211 Acoustic comfort evaluation in urban open public spaces  
W. YANG & J. KANG (UK)
- 231 The UK noise climate 1990–2001: population exposure and attitudes to environmental noise  
C.J. SKINNER & C.J. GRIMWOOD (UK)
- I Calendar

**Issue 3**

- 245 Assessment of sandwich models for the prediction of sound transmission loss in unidirectional sandwich panels  
T. WANG, V.S. SOKOLINSKY, S. RAJARAM & S.R. NUTT (USA)
- 263 Sensitivity of the FAA Integrated Noise Model to input parameters  
J. CLEMENTE, E. GAJA, G. CLEMENTE & A. REIG (Spain)
- 277  $H_\infty$  Feedback control and Fx-LMS feedforward control for car engine vibration attenuation  
B. SEBA, N. NEDELJKOVIC, J. PASCHEDAG & B. LOHMANN (Germany)
- 297 Statistical evaluation of occupational noise exposure  
E. CAGNO, A. DI GIULIO & P. TRUCCO (Italy)
- 319 Localisation of moving sources in a multipath propagation environment  
S. BOURENNANE & A. BENDJAMA (France)

*Technical notes*

- 341 Optimization of constrained composite absorbers using simulated annealing  
Y.-C. CHANG, L.-J. YEH & M.-C. CHIU (ROC)
- 353 Vibration characteristic analysis of buried pipes using the wave propagation approach  
J.X. LIU, T.Y. LI, T.G. LIU & J. YAN (PR China)
- I Calendar

**Issue 4**

- 365 Analysis and optimisation of the tuning of the twelfths for a clarinet resonator  
V. DEBUT, J. KERGOMARD & F. LALOË (France)
- 411 Fluid–structure coupling in the guitar box: numerical and experimental comparative study  
A. EZCURRA, M.J. ELEJABARRIETA & C. SANTAMARÍA (Spain)
- 427 An experimental validation of vibro-acoustic prediction by the use of simplified methods  
N. TROMPETTE & M. GUERICH (France)

*Technical notes*

- 447 Evaluation and analysis of the environmental noise of Messina, Italy  
A. PICCOLO, D. PLUTINO & G. CANNISTRARO (Italy)
- 467 Calculation of noise maps around electrical energy substations  
F.B. DINIZ & P.H.T. ZANNIN (Brazil)
- I Calendar

**Issue 5**

- 479 Editorial  
K. ATTENBOROUGH (UK)
- 481 An improved model for the acoustic radiation impedance of the mouth based on an equivalent electrical network  
M. VOJNOVIĆ & M. MIJIĆ (Serbia and Montenegro)
- 501 Definition of road roughness parameters for tire vibration noise control  
T. FUJIKAWA, H. KOIKE, Y. OSHINO & H. TACHIBANA (Japan)

- 513 An approach to voice conversion using feature statistical mapping  
M.M. HASAN, A.M. NASR & S. SULTANA (Brunei Darussalam)
- 533 The acoustical influence of balcony depth and parapet form: experiments and simulations  
H. HOSSAM EL DIEN & P. WOLOSZYN (France)
- 553 Air–ground interaction in long range propagation of low frequency sound and vibration—field tests and model verification  
C. MADSHUS, F. LØVHOLT, A. KAYNIA, L.R. HOLE (Norway), K. ATTENBOROUGH & S. TAHERZADEH (UK)

*Technical notes*

- 579 Measurement of sound intensity using a single moving microphone  
T. MUSHA & J.-i. TANIGUCHI (Japan)
- 591 Feasibility of subjective speech intelligibility assessment based on auralization  
J. PENG (PR China)
- I Calendar

**Issue 6**

- 603 Editorial  
K.V. HOROSHENKOV (UK)
- 607 Deduction of tortuosity and porosity from acoustic reflection and transmission measurements on thick samples of rigid-porous materials  
O. UMNOVA, K. ATTENBOROUGH, H.-C. SHIN & A. CUMMINGS (UK)
- 625 On the use of perforations to improve the sound absorption of porous materials  
F.C. SGARD, X. OLYN (France), N. ATALLA (Canada) & F. CASTEL (France)
- 653 Prediction of the reverberation absorption coefficient of finite-size membrane absorbers  
K. SAKAGAMI, T. UYAMA, M. MORIMOTO & M. KIYAMA (Japan)
- 669 Feasibility of applying micro-perforated absorbers in acoustic window systems  
J. KANG & M.W. BROCKLESBY (UK)
- 691 Hybrid passive/active absorbers for flow ducts  
M.-A. GALLAND, B. MAZEAUD & N. SELLEN (France)
- 709 Performance of profiled single noise barriers covered with quadratic residue diffusers  
M.R. MONAZZAM & Y.W. LAM (UK)
- 731 Impact sound insulation and viscoelastic properties of underlay manufactured from recycled carpet waste  
I.M. RUSHFORTH, K.V. HOROSHENKOV, M. MIRAFYAB & M.J. SWIFT (UK)
- I Calendar

**Issue 7**

- 751 Measurements of sound transmission through panels of locally resonant materials between impedance tubes  
K.M. HO, Z. YANG, X.X. ZHANG & P. SHENG (China)
- 766 Reduction of equivalent continuous A-weighted sound pressure levels by porous elastic road surfaces  
T. FUJIWARA, S. MEIARASHI, Y. NAMIKAWA & M. HASEBE (Japan)
- 779 Application of multi-channel spectral analysis to identify the source of a noise amplitude modulation in a diesel engine operating at idle  
Q. LECLÈRE, C. PÉZERAT, B. LAULAGNET & L. POLAC (France)
- 799 A traffic noise prediction method based on vehicle composition using genetic algorithms  
Ö. GÜNDOĞDU, M. GÖKDAĞ & F. YÜKSEL (Turkey)

- 810 Comparison of models for predicting the transmission loss of plenum chambers  
X. LI & C.H. HANSEN (Australia)
- 829 Evaluation of frequency dependent rubber mount stiffness and damping by impact test  
T.R. LIN, N.H. FARAG & J. PAN (Australia)
- 845 In situ measurements of surface impedance and absorption coefficients of porous materials using two microphones and ambient noise  
Y. TAKAHASHI, T. OTSURU & R. TOMIKU (Japan)
- 866 Sound field of a baffled sound source covered by an anisotropic rigid-porous material  
C.-N. WANG & H.-M. CHO (Taiwan, ROC)

*Technical note*

- 879 A method for calculating the absorption coefficient of a multi-layer absorbent using the electro-acoustic analogy  
Z. CONGYUN & H. QIBAI (PR China)
- I Calendar

**Issue 8**

- 889 Inter-channel de-correlation for perceptual audio coding  
S. TORRES-GUIJARRO, J.A. BERACOECHEA-ÁLAVA, L.I. ORTIZ-BERENGUER & F.J. CASAJÚS-QUIRÓS (Spain)
- 902 A three-dimensional finite element approach for predicting the transmission loss in mufflers and silencers with no mean flow  
O.Z. MEHDIZADEH & M. PARASCHIVOIU (Canada)
- 919 Musicians' noise exposure in orchestra pit  
J. LEE, A. BEHAR, H. KUNOV & W. WONG (Canada)
- 932 Sound localization with monocular vision  
S.M. ABEL & C. TIKUISIS (Canada)
- 945 The reverberation time of furnished rooms in dwellings  
C. DÍAZ & A. PEDRERO (Spain)
- 957 Acoustic noise simulation and measurement of a gradient insert in a 4 T MRI  
G.Z. YAO, C.K. MECHEFSKE & B.K. RUTT (Canada)
- 974 Noise dosimeter for monitoring exposure to impulse noise  
C.A. KARDOUS, R.D. WILLSON & W.J. MURPHY (USA)

*Review*

- 986 Recommendations for enhancing the role of the auditory modality for processing sonar data  
G.R. ARRABITO, B.E. COOKE & S.M. McFADDEN (Canada)
- I Calendar

**Issue 9**

- 1007 Modelling of some mechanical malfunctions of the human basilar membrane  
E.B. SKRODZKA (Poland)
- 1018 Robust supergain beamforming for circular array via second-order cone programming  
S. YAN & Y. MA (China)
- 1033 Factors contributing to the uncertainty in circumaural earphone calibration for audiometric testing  
M. RUIZ, B. FEUEREISEN, D. MACHON & M. RECUERO (Spain)

*Technical notes*

- 1049 Noise characteristics of tractors and health effect on farmers  
K.N. DEWANGAN, G.V. PRASANNA KUMAR & V.K. TEWARI (India)



- 1063 Acoustic comfort on board ships: An evaluation based on a questionnaire  
B. GOUJARD, A. SAKOUT & V. VALEAU (France)
- 1074 Acoustical barrier for tonal noises  
R.S. MING (Australia)
- 1088 Sound intensity investigation of the acoustics performances of high insulation ventilating windows integrated with rolling shutter boxes  
F. ASDRUBALI & C. BURATTI (Italy)
- 1102 Sound diffraction by multiple wedges and thin screens  
H.-S. KIM, J.-S. KIM, H.-J. KANG, B.-K. KIM & S.-R. KIM (Republic of Korea)
- I Calendar

#### Issue 10

- 1121 A factorial analysis for the determination of an optimal train speed with a desired ride comfort  
K. KARAKASIS, D. SKARLATOS & T. ZAKINTHINOS (Greece)
- 1135 Motorway noise modelling based on perpendicular propagation analysis of traffic noise  
M. TANSATCHA, P. PAMANIKABUD (Thailand), A.L. BROWN & J.K. AFFUM (Australia)
- 1151 FEM dynamic model for active vibration control of flexible linkages and its application to a planar parallel manipulator  
X. WANG & J.K. MILLS (Canada)
- 1162 Approximate closed form solutions for free vibration of polar orthotropic circular plates  
W. KANG, N.-H. LEE (Republic of Korea), S. PANG (New Zealand) & W.Y. CHUNG (Republic of Korea)
- 1180 Variability in road traffic noise levels  
J. ALBEROLA, I.H. FLINDELL & A.J. BULLMORE (UK)

#### Technical notes

- 1196 Development of a noise sources classification system based on new method for feature selection  
X. ZENG & Y. ZHAN (PR China)
- 1206 Adaptive signal processing for reducing nearby generated flow noise  
T. MUSHA & T. KIKUCHI (Japan)
- I Calendar

#### Issue 11

- 1219 Spatial sound resolution of an interpolated HRIR library  
J. SODNIK, R. SUŠNIK, M. ŠTULAR & S. TOMAŽIČ (Slovenia)
- 1235 Vibro-acoustic noise control treatments for payload bays of launch vehicles: Discrete to fuzzy solutions  
C.Q. HOWARD, C.H. HANSEN & A. ZANDER (Australia)
- 1262 Least-error localization of discrete acoustic sources  
D.C. TORNEY & R.J. NEMZEK (United States)
- 1278 Computation of internal aerodynamic noise from a quick-opening throttle valve using frequency-domain acoustic analogy  
J. RYU, C. CHEONG, S. KIM & S. LEE (Korea)

#### Technical note

- 1309 An improved broad-spectrum room acoustics model including diffuse reflections  
X.Y. ZENG (PR China)
- I Calendar

**Issue 12**

- 1321 Mechanical passive and active models of the human basilar membrane  
E.B. SKRODZKA (Poland)
- 1339 Field measurement of airborne sound insulation between rooms with non-diffuse sound fields at  
low frequencies  
C. HOPKINS & P. TURNER (UK)
- 1383 A simple empirical model of polyester fibre materials for acoustical applications  
M. GARAI & F. POMPOLI (Italy)
- 1399 Resonance identification in loudspeaker driver units: A comparison of techniques  
S.J. LOUTRIDIS (Greece)
- I Calendar
- III Contents of Volume 66
- IX Acknowledgement of Referees